

JUN 30 2008

Appl. No. 10/531,196
Amdt. dated June 30, 2008
Response to Office Action of March 31, 2008

Amendments to the Specification:

Please replace the paragraph beginning at page 2, line 2, with the following rewritten paragraph:

However, the starting materials used in the above methods (1) to (3) are all secondary compounds which are expensive and difficult to obtain. For example Li_3PO_4 and iron oxalate (FeC_2O_4) are both relatively ~~expansive~~ expensive and cause an increase in the production costs of the cathode material. $\text{Fe}_3(\text{PO}_4)_2 \cdot 8\text{H}_2\text{O}$ as another iron compound can be synthesized from Na_2HPO_4 and $\text{Fe(II)SO}_4 \cdot 7\text{H}_2\text{O}$, for example, but it is a hydrate whose hydration number is unstable and it is therefore difficult to control the feeding of it in a stoichiometric manner. Also, since $\text{Fe}_3(\text{PO}_4)_2 \cdot 8\text{H}_2\text{O}$ is obtained as a precipitate in the synthesis process thereof, a cumbersome process such as filtering is required to remove sodium ions and so on. However, it is difficult to remove sodium ions and so on completely, and such a process may bring the entry of impurities. To carry out the filtering completely to increase the purity of the calcination precursor, it is preferred to allow the crystals of $\text{Fe}_3(\text{PO}_4)_2 \cdot 8\text{H}_2\text{O}$ precipitates to grow until they reach a large diameter (about 10 μm or greater). However, when a mixture of $\text{Fe}_3(\text{PO}_4)_2 \cdot 8\text{H}_2\text{O}$ particules with a large diameter and Li_3PO_4 is calcined, the resulting LiFePO_4 particles have a large diameter and have low activity as a cathode material.

Please replace the paragraph beginning at page 12, line 32 with the following rewritten paragraph:

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Examples of the conductive carbon precursor include bitumens (what is called asphalt; including pitches obtained from coals or petroleum sludge), a saccharide, ~~styrene-divinylbenzen~~ styrene-divinylbenzene copolymers, ABS resins, phenol resins, and crosslinked polymers containing aromatic groups. Among these, bitumens (especially, what is called refined and coal pitch) and a saccharide are preferred. Bitumens and a saccharide are turned into conductive carbon by pyrolysis and impart conductivity to the cathode material. In particular, a refined coal pitch, which is very inexpensive, is melted and spread evenly over the surfaces of the ingredient particles during calcination, and is pyrolyzed and turned into carbon deposits with high conductivity by calcination at a relatively low temperature (650 to 800°C). When a saccharide is used, a multiplicity of hydroxyl groups contained in the saccharide act strong on the surfaces of the particles of the ingredients and generated LiFePO_4 and prevent the growth of crystals. Thus, the use of a saccharide can provide excellent crystal-growth inhibiting effect and conductivity-imparting effect.